

PLATO Course Coordinators' Guide for Hybrid Classes

Introduction

One of the many impacts of the COVID-19 pandemic is the emergence of hybrid meetings to simultaneously address the needs of people who attend in-person while others participate from remote locations. Hybrid technology and meeting management techniques have evolved to facilitate this need and some PLATO courses are taking advantage of it.

This Guide aims to help PLATO course coordinators plan, set up and conduct a PLATO course using hybrid technology. The guide is based on PLATO's use of the Google Meet platform. Other platforms, notably Zoom, are similar in their design and implementation, but also have some features that differ from Google Meet.

PLATO courses meet in as many as 16 host locations, some classes are small discussion groups in conference rooms while other classes are relatively large and meet in auditoriums. Therefore, these guidelines should help you determine if a host location can support hybrid classes and help you tailor the technology to the needs of your course and your meeting room. Some of these guidelines are specific to small classes, some to large classes and some apply to all classes.

The Basics

There are four things required to hold hybrid classes. **First**, you, the coordinator, must have a PLATO-provided Google Meet account. (Zoom or other platforms can also be used, but they are not supported by PLATO.) **Second**, the meeting room in our host location must have a robust Internet service that allows our classes to connect into their service with adequate bandwidth. **Third**, there must be the right hardware and furniture configuration to allow every in-person and every remote participant to see and hear everyone else clearly. **Fourth**, the course coordinator should team with another class participant (or two) to manage the hybrid hardware as well as to help enable the remote class members to be full participants. (They will be referred to as your tech support persons.)

The following guidelines and recommendations expand on these basic requirements.

1. Set up a Google Meet Account

Contact the PLATO administrative staff at info@platomadison.org to set up the Google Workspace account that includes Google Meet with Premium features. They will assist you with the PLATO Technology Committee and Curriculum Committee to help set up your hybrid course. Even if you can use Google Meet with your personal account, you will need a *PlatoMadison.org* account to access PLATO's subscription to the more robust platform with its increased capabilities.

2. Test the Host Location's Internet

Successful PLATO hybrid courses have been held at Capitol Lakes, Madison Senior Center, Oakwood, and Vista West. If you are planning on a hybrid course at a different location, you need to determine if the host location has adequate and accessible Internet service to support your hybrid course.

The most basic test is to see if you can access the host location's Wi-Fi service with your laptop in the room that you will use for your course. You may need to obtain the password for the host location's Wi-Fi to do this.

Even better would be a test run of your setup at the host location. You might send a Google Meet link to an offsite colleague who then joins you on Google Meet and converses with you in the meeting room over Google Meet. If you plan to have presentations in any of your classes, you should test Google Meet's "Present" mode and play a YouTube or other video and PowerPoint slides. Your offsite colleague might also play a YouTube video and PowerPoint slides to see if you can receive them well in the host location's meeting room.

3. Assemble the Hardware

The hardware that you need will depend on what the host location will provide, the number of participants in your class and how your class functions. The host location may provide...

- A large TV monitor
- Data projector and screen
- Speakers to play audio run through the data projector
- Cables (typically HDMI) and adaptors to plug everything together

Here is a simplified list of how PLATO classes function and what their hardware needs will be.

- Example #1: **A small discussion-based** class, say fewer than 15 in-person participants in a conference room and a similar number of online participants. You will need to arrange for...
 - a laptop computer and cable connected to a large TV monitor
 - a speakerphone, preferably with Bluetooth connection to the laptop
 - a second laptop or tablet for the class's tech support person
- Example #2: **A small presentation-based** class with fewer than 15 in-person participants in a conference room and a similar number of online participants. In addition to the above you will need...
 - a cable connection from the coordinator's or presenter's laptop to a data projector or large TV monitor to project presentation visuals, e.g., PowerPoint slides or videos
 - to use Google Meet's "Present" mode to show the presentation, which gives the online participants a better image than using a camera of the projection screen in the meeting room

- **Example #3: A large discussion or presentation-based class**, with more than 15 in-person and several online participants. In addition to both of the above examples you may also need...
 - a second speakerphone, preferably a portable one with Bluetooth connection to the laptop, if the room is too large for one speakerphone
 - another option might be a stand-alone camera that is more flexible than a laptop's camera and which can adjust the field of view and optimize the classroom's lighting limitations

A caveat for larger classes in larger rooms is that it is appreciably more difficult to manage this arrangement and often more difficult for remote and in person participants to see and hear each other.

4. Manage the class

This section describes how the video conference software (Google Meet) and hardware need to be managed for successful classes.

Example #1: A small discussion-based class. The coordinator and tech support person should arrive early to the venue to make sure the Internet connection is functioning adequately; to hook up all the hardware; to test the speakerphone and TV monitor; and set up the furniture to facilitate where participants sit so that you can aim the laptop's camera at the person speaking. Make sure the Google Meet screen layout is optimized for how you want the person speaking and the other participants to be seen on screen, such as the use of Gallery, Sidebar, or Spotlight layout. The coordinator and tech support person need to decide on a plan for how online participants can get your attention so they can speak and how to make sure the camera in the classroom includes the person speaking in the room. The closer the in-person participants are to each other, to the speakerphone, and to the camera the better.

Example #2: A small presentation-based class. Since most presentation-based classes also incorporate discussion, either during or after a presentation, all the guidelines in Example #1 apply here as well. If the person making the presentation is in the classroom and will use visuals, such as PowerPoint slides or videos, then that person will need their own laptop computer and cable connection to the data projector or TV monitor. They must show their visuals in "Present" mode in Google Meet for the online participants to see them clearly. The course coordinator or tech support person will need their own laptop or tablet to monitor online participants to see when the online participants want to speak during or after the presentation.

If the presenter is online, instead of in the classroom, they would make the presentation in Google Meet "Present" mode. Meanwhile the course coordinator or tech support will need to monitor both the in-person and online participants and they may need to inform the presenter when someone wants to speak. (When the online presenter is in "Present" mode, they will not be able to see the other participants and will depend on the person monitoring the class participants to inform the presenter of the question or comment raised by the participant.)

Example #3. A large discussion or presentation-based class. Managing this type of class will depend a lot on the specific configuration of the classroom or auditorium. All the guidelines of Examples 1 and 2 may relate to this example. However, it may not be feasible to configure the furniture optimally for the in-person participants. Each class may need to improvise how to use the hardware to make it work as a function of the room they are in and the format of the class.

One scenario might be that the presenter has their laptop connected to the data projector or TV monitor and shows the visuals through Google Meet “Present” mode so the online participants can also see them. For the discussion, a three-person team may be desirable. One team member might manage the laptop’s camera (or a stand-alone camera) to aim at the in-person who is speaking in the room, another member might need to take a portable speakerphone to the discussant (or repeat the question or comment into the speakerphone if that is more practical) and the third team member would monitor the in-person and online participants and act as emcee to coordinate the discussion among all participants and the presenter.

Best Practices

The following recommendations might apply to your class.

Hybrid Course Team

The course coordinator should identify one or two other participants in their class to be their technical support team. While the coordinator manages the class content and delivery, the technical support person(s) ensures that the hardware, Internet connection and video conferencing software are functioning properly. The technical supporters might also assist the coordinator to ensure the online class members are included as full participants.

Discussion facilitation

Despite the effort you may put into class design and logistics, it remains far too easy for in-person attendees to dominate the discussion. A designated team member, typically the course coordinator, should draw the remote participants in, keep them engaged and ensure their voices are heard, not interrupted or talked over. At times, the facilitator may need to call on in-room or remote participants to ensure that all voices are heard and that online participants feel equally valid.

Audio

Online participants will be frustrated if they can’t hear the in-person speaker in the classroom. Make sure you have a good speakerphone and that all in-person participants are sitting close enough to it so that they can be heard clearly online. If that isn’t possible, you should repeat the question or comment near the speakerphone for the online participants.

Video

Set up your laptop so that the camera can see all the in-person participants or can be easily adjusted to be aimed at the person speaking if they fall outside of the camera’s vision. Depending on the structure of the class, you might benefit from two laptops aimed at speakers, perhaps one

that is fixed on the presenter and the other that is moved around to focus on the people that are in dialogue with the presenter.

A standard-alone camera would be preferable to a laptop camera, if available. They are more flexible, adjustable, and typically higher resolution than the laptop's camera.

Test the technology in advance

Make sure you have the right cables and adaptors to connect all your hardware components. Put your entire system together in the room you will use for your class for a dry run before your first class. The day of your first class may be too late to get the missing link required to connect everything and work out the bugs.

Similarly, do you or the host location have technical support to fix glitches? If there is a technical challenge, you should know who to contact to resolve the issue quickly.

Nothing kills a meeting's momentum like waiting to fix a glitch in the audio or video. Prior to each class, test the audio-visual set up — both in-room and for the remote attendees. For your first class, schedule a 10–15-minute dry run to get online participants comfortable with what they will see and hear during the class, as well as to review any software features they'll likely be asked to use.

If you have a remote presenter for one of your classes, don't assume they are familiar with the Google Meet "Present" function. Do a test run with them a day or two before class to make sure they can do it. If your guest presenter is uncomfortable presenting, you might ask them to send you the electronic file of the program and you present the images while the presenter speaks.

More Technical Details

1. Set up Google Meet Account

When you have a PLATO Workspace account, which includes Premium Google Meet, your classes will not be constrained by a time limit. You will also have access to other features that you could choose to use in your class. For example, Premium Google Meet includes Breakout Rooms - you can use breakout rooms to divide participants into smaller groups during a class; Polls - you can create polls for participants to vote on during classes. For more information on these and other features, see: <https://support.google.com/meet/answer/10459644?hl=en>.

Google Workspace has the capability of recording a Google Meet session. However, if you want to use that function, you will need to contact the PLATO staff at info@platomadison.org to turn on that capability.

2. Assemble the Hardware

Computer: laptops are recommended over tablets whenever possible. Laptops generally have more capabilities for connections with hardware and Google Meet's functions are more user-friendly than on tablets. Make sure your laptop has the most recent operating system update (OS or iOS for Macs) and an HDMI port. Check to see if it supports Bluetooth if you need that to connect with a speakerphone.

Speakerphone: There are several potential solutions for meeting the audio needs of a hybrid class. Is a speakerphone required? For classes of more than, say, 4-6 participants sitting close together, a good speakerphone would probably provide better audio in and out compared to a laptop or tablet's built-in audio. More powerful stationary speakerphones could support larger gatherings, but auditoriums with fixed seating are not well suited to hybrid classes when there is a lot of participation by the in-person members.

A connection of the speakerphone to a laptop with Bluetooth capability is preferred. However, the Bluetooth connection could be made through another device, such as a participant's phone. Older laptops without Bluetooth can use a USB connection. Because of the many variables related to the laptop's and the speakerphone's capabilities (as well as the characteristics of the meeting room), it will be necessary to experiment with the setup to select the best option.

This guide can only provide limited advice on speakerphone selection. Jabra brand speakerphones may be slightly more expensive than most competitors, but they are solid performers throughout their product line. They have top ratings in microphone clarity at all price points. Jabra's smallest model, the 510, performed very well in the Madison Senior Center's meeting rooms. (A USB-only variant, called the 410, is identical and cheaper but lacks Bluetooth). In June 2023, the 510 model was available on Amazon for \$105. Larger and more expensive models might be preferred for classes with up to 20 moderately spaced participants.

Stand-alone camera: A good stand-alone camera has more flexibility in the classroom and higher quality images than the camera on the laptop or tablet. One example is Logitech Brio.

Host location equipment: Make sure that your computer can be connected to the host location's equipment. Do you have the right cables? Do you need an adaptor to connect your computer with a cable?

3. Manage the Class

Once you have a Google Workspace account, set up a practice meeting with your hybrid class technical support teammate(s) during which you might experiment with all the Google Meet features and controls that you as the host can manipulate. For example, you can put an online participant on mute if there is too much distracting noise from their computer. Experiment with using Gallery, Sidebar or Spotlight screen layout to see which works well for your class.

Experiment with "Present" mode to ensure you can help presenters in your class who may be challenged by that function. Try presenting a YouTube video to see if the audio and video both work for the online participants.

Depending on how you prefer managing discussions or Q&A, you might consider asking the online participants to use chat box to submit their comments or questions.

If you have questions about hybrid technology, please contact Bill Colwell at wscacct@live.com.